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(54) Title: GAMING SYSTEM			
(57) Abstract A computer based animated racing game comprising one or more events in which each move of each competitor is obtained from a random number generator and each competitor has an equal chance of success. A jackpot feature having a prize pool is triggered by a particular result or series of results. If the result or series of results is not achieved then the prize pool is not distributed and jackpots to the next game.			

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GAMING SYSTEM

This invention relates to computerised games which include gambling games and more specifically to games which can incorporate a jackpot. The invention disclosed is particularly suited to games that are of a racing nature whether this be horse racing, car racing, boat racing or any other type of racing but in this specification will be discussed in terms of horse racing.

Whilst there are many different types of computer program based gambling games and jackpot systems, a broad variety and input of novel games of this kind are required to maintain and stimulate the public's interest.

In this specification, we shall use the term 'competitors' to indicate the horses, cars or other objects which are part of the game and 'players' to indicate those persons who bet on the game. The term 'game' will refer to one complete result achieving cycle and 'event' to one component of the game. It is possible to have a single event game.

It is the object of this invention to provide a novel computer based game which in itself provides sufficient variation to maintain player interest. Although any embodiment of the invention may result technically in several games.

This invention is adapted to provide a computer program based game which provides a randomly generated, animated racing type game, and particularly one which has a novel jackpot feature. While computer program based games for racing type games are not new, the novel nature of the type of racing, along with the novel nature of the type of jackpot feature, that is generated by the particular game of this invention, are both new and possess a much higher degree of excitement and entertainment than a standard such race game or a standard jackpot method used.

The invention in its broadest sense provides for computer based race type games the results of which are randomly generated.

Specifically the games are played in real time and each move of each competitor is separately obtained from a random number generator.

One aspect of the invention relates to a randomly generated jackpot game and another embodiment comprises a random animated horse race game which can offer large prizes to players by means of jackpots for a correct sequence chosen, and bonuses for lesser award prizes.

In a first embodiment of the invention we provide a computer program based game which has a provision whereby players can bet on the result of a number of races and, if successful in each of their selections, can win part or all of the prize pool, but if there are no winning selections then the prize can jackpot.

Preferably the games provided are games that are displayed in video form, in which the various possible selections are shown. It is envisaged that the games of the invention may be operated over a substantial network, such as, for example, television channels or Sky Channel or the like.

In one embodiment of the invention each of the participants in each race has a statistically equal chance of success which is not a feature provided in any other known such games.

Racing by its nature, is not an equal chance event, and due to the number of variables that are uncontrollable, a racing competitor can never have the same or equal chance as another competitor.

To date, all racing games have reflected the normal types of racing where competitors have an unequal chance of winning and have provided the competitors in the race with differing or unequal chances of winning, which has permitted these racing games to offer "odds/race markets", just as professional bookmakers would on "live racing". Thus these games allow the proprietor of such a racing game to generate revenue in much the same manner as a bookmaker would in a "live race" by the provision of odds which ensures that the proprietor will retain a certain percentage of monies wagered, regardless of which competitor wins the race.

In real life a considerable amount of effort has to be put in to obtain the necessary knowledge for a person to be able to make a properly considered bet on a race in which the odds are not equal. Few people are prepared to expend the required effort and, for this reason, simple lotteries have become increasingly popular.

The provision of an equal chance racing game is therefore attractive as it makes racing games simple, while still maintaining the excitement of racing, with simplicity being the key element to attracting the majority of the public to participate.

In order that the invention may be more readily understood we shall describe certain embodiments thereof

In any embodiment of the game the race begins with a pool of horses and/or their numbers and the number of runners need not be limited.

Most games or jackpots are decided after one event, such as a regular "live" horse race, or a royal flush on a poker game or the correct numbers on a lottery or bingo game. One of the features of this game is that the winners of the differing prizes, jackpots and bonuses may be decided after a number of events rather than just one event although the game of the invention is not limited to multiple event outcomes.

In a preferred embodiment of the invention one of our methods of operation would be for the winning sequences to be determined over six races however the exact number of races is not germane to this invention and the use of six is exemplary only.

In the game of the invention, all horses in all races are given equal chances of winning by equally seeded random generation, which is certainly not the case in "live" racing or in existing racing game computer programs.

The object for players of this game is for a player to successfully choose the winning horses of each of the six races.

The chance of an individual player successfully selecting the six winners of the six races would be small, though we envisage that this game would be played state-wide or nationwide with a large number of participants. A large player base would, of course, increase the likelihood of a player successfully choosing the winners of the six races.

A player or players who chooses the six winners would win the main prize, which would be divided equally if there was more than one successful player.

Should no player be successful in selecting the correct winners of the six races then the main prize would jackpot and be carried over the following game, which could be the next hour, next day, next week etc.

After five races, it would be possible to provide the approximate dividends on the last race, should a certain horse win that race. This would be very exciting for players that still hold a "live" entry. Provision can also be made for paying additional prizes for running 2nd or 3rd in the last race or any other variation required at any stage of the race series. Additionally the game provides a possibility that there may be no "live" bets after a number of the races thus potentially causing a carry over jackpot situation.

The game is particularly suitable for use in association with a video reproduction of a race. For example, there are already available video horse racing games which do not operate on the same parameters as set out for this game, in particular in such games there is not an equal opportunity for each of the horses as the progress of each is weighted by the odds.

It is envisaged, in this invention, that the actual selection of the winners of each race would be video displayed and could be transmitted through conventional television channels or through specialist racing channels such as Sky Channel.

Thus each of the six races to be run in a game can be transmitted at required times, either in direct sequence or at specific times during a period, and the person who hold bets in the race can have involvement as each particular race is run. The running of the game could thus become a substantial social event which could be shared by numbers of competitors at a large number of different venues.

In one embodiment of the game we may feature a format of pooling and re-pooling horses so that if for example there are 48 horses in the race then the first race winner may be any number 1-48 and after the winner of the first race is decided then all of the remaining horses are re-pooled and the next race winner will come from the remaining 47 horses.

Whilst we have described the game using the example of 6 winners from a pool of 48 starters, neither of these figures should be seen as fixed or limited, for example the game could use 5 winners from a pool of 35, 40 or 45, 6 winners from a pool of 42 or 54, 7 winners from a pool of 49 or 56 etc, the combinations are feasibly endless, and would be a matter of preference for both the players and the operator.

It is also quite feasible to imagine one race of 48 video animated horses with a player trying to choose the first 6 placed horses, or alternatively 2 races of 24 horses with players attempting to pick 1st, 2nd, 3rd in both races $3 \text{ from } 24 \times 2 \text{ races} = 6 \text{ from } 48$.

Further, if, say, any one race was required the system could first select, say, eight horses from the pool and there could be a single race with the first six horses being equivalent to the six winners in the previous embodiment.

It is further envisaged that a single race game could be provided with preferably 24 horses with the player picking 6 places for first prize and 5, 4, 3 etc for the other prize divisions although the numbers of horses and places could of course be varied.

In another embodiment the 'equal chance' format could be used without a jackpot feature and be used as a straight 'equal chance' race format which would simply be an easier format for persons interested in gaming but without the type of knowledge which would be had by horse players who are used to considering matters which lead to different odds.

The standard industry wagers of win, quinella, trifecta etc. can all be played on the 'equal chance' format with all players, expert and novice alike, having confidence that all horses have the same 'equal chance' of winning, which is not the case in established forms of racing.

It will be seen that the odds involved in picking six winners are very long

In the exemplified form they are of the order of 8.8×10^9 .

For a game which is held with a very large number of entries these odds are somewhat less than the odds in such lotto games as Tattslotto, where the winning entry is six correct numbers from 45.

Depending upon the likely entry the odds can be varied to ensure that winners occur more regularly but of course it will be appreciated that the likely size of the prize pool depends substantially on the total number of entries.

For example, the game could be varied so that each race had horses bearing saddle cloth numbers from one to eight, although for amusement purposes it would be preferred that they had different names, and in this case the likelihood of an accurate result would be 1 in 262,000.

It may be desirable that barriers always carry the same jockey's colours, so that it would be easy for players to recognise their horses during the race. The saddlecloths of the horses that are randomly selected to race will, of course, always carry the number 1-48 of the horse. Should a horse have a hood or blinkers this would coincide with the colours of the barrier.

All this would be very important if a race-caller was to be used to do a voice over any events, additionally this would assist players of this game in recognising the horses that they have selected.

Should all of the pooled horses be given names then players would soon recognise these names and could select the preferred horses by number or name or both. This would also make it more realistic and easier for players to hear the name and possibly number of their selection being called during the race.

An example of the Pooling and Re-Pooling embodiment is given below:

1. Pool of 48 horses - All equal chances.
2. Random selection of 8 horses from pool.
3. The selected horses randomly put in barriers 1-8.

4. The horses each with an equal chance are then raced. The winning number is held aside and displayed as the winner of Race 1.
5. The seven other horses in race 1 are then re-pooled so that they may be re-selected to complete in other following races.

The pool is now 47, then repeat steps 2 through to 5 and so on to determine the winning horse of Race 2.

This is held aside and displayed as the winner of Race 2.

These steps are repeated until winning numbers are provided for all races, in this case all 6 races.

The 2nd and 3rd place getters of the last race will also be held aside to provide additional numbers for players so as to be able to generate additional pays.

Exemplary Possible Pay Tables:

- 6 winners - Top prize - Jackpot.
- 5 winners and 2nd place (last race)
- 5 winners and 3rd place (last race)
- 5 winners
- 4 winners and 2nd place; (last race)

4 winners and 3rd place (last race)

4 winners

3 winners and 2nd place (last race)

3 winners and 3rd place (last race)

The amount paid for the winning results, other than the jackpot can be selected so as to be satisfactory for the players but, at the same time leaving most of the jackpot to be held in the pool for the next game.

A possible scenario to show players the random selection of horses and barriers at the same time would be for a "head on" picture, which may be graphically generated, or a picture from a video display of the barriers for the race. Above each stall would be a "window" large enough to display the number randomly selected from the pool.

It may be preferred that all of the graphic windows above the barriers would be seen to display the numbers spinning vertically "through" the windows until such time that one by one in numerical order from barrier 1 through 8 they would stop spinning and display the numbers randomly chosen.

By using normal seeding of the random generator all horses would have an equal chance of success.

A further embodiment of this invention relates to the adaption of the game to a video gaming or amusement machine.

This system, although primarily envisaged for adaption to a video game, it should also be seen that the said format could be adapted to a "live game" format, when used in a casino environment, would employ the use of a dealer which shall be discussed later.

In this aspect we provide a game wherein a number of competitors are each moved on a display in discrete steps characterised in that there can be provided randomly generated 'equaliser' steps in which all of the competitors are moved by an equal number of discrete steps at the same time. This system would employ the use of a computer random number generator (or more properly a pseudo random number generator) as is conventional with video games.

In other forms of game, the numbers could be obtained from a deck of cards, die, or other device which can provide a number of different results.

In the video game application, we may provide a five competitor race, though the number of competitors in the race need not be restricted to five nor the racing elements restricted to horses.

The participants would be simulated graphically on a video monitor.

Each of the five horses would have to get a predetermined number of movements to win the race and the number selected could depend on the format to be used. It could be as low as, say, nine movements to provide a short race with the movements of each of the competitors

being relatively large on each occasion and with them following sequentially, or it could be a very large number to provide a full race in which the graphics can show what looks like an actual race.

In the first case, on the board or display, the first eight movements will be shown by the horses effectively moving eight discrete spaces, the ninth movement taking the horse over the finish.

In a practical form of the invention we may, for simplicity, and to assist in participator friendliness, select names which would be readily identified by effectively all players, for example, the names could be selected after seasons, and one suggestion would be as follows:-

1. Ace of Spring
2. Ace of Summer
3. Ace of Autumn
4. Ace of Winter
5. The Joker/Jack Frost

In order to add another stimulus to this format and in keeping with the casino style of a video gaming machine yet differing from a perceived horse race there could be the addition of a "jackpot" to the game format.

In order to adapt a 'jackpot' to this randomly generated horse race, I envisage a concept of allocating one result from the random generator which would apply to each of the five horses.

This one space allocated to each horse, is entitled the 'Equaliser Space'. In the event that this Equaliser space were selected, it would move all the participants one space each.

If one horse had already crossed the finish line without the equaliser space being selected, the race would be over and the jackpot system would not come into effect.

The manner in which the jackpot system would come into play would be when the following situation arose. More than one horse was positioned, one space away from winning for example, in an nine movement race if two or more horses have received eight spaces, they would each be positioned one space away from winning, and if the equaliser space occurs then the horses positioned one length away from winning would all cross the finish line at the same time, thus providing a dead heat, or a triple dead heat or even a higher multiple dead heat

The Equalizer space could be initiated by a further random number generator which, when a number required to trigger an Equalize space is achieved, then this takes priority over the normal number from the normal random number generator.

It should be seen that the odds of the five horses, the entire field, crossing the finish line simultaneously are greater than any lesser number and the jackpot pay offs would be adjusted accordingly.

In order to win a bonus prize a player must have generally wagered on one of the horses that was involved in the dead heat but it is possible to provide a scenario where all players obtain a benefit.

The selection of the Equaliser space may be such that it only occurs at intervals long compared to normal movement results. For example, the likelihood of the equaliser space being applied could be of the order of 50:1 compared to any one of the other results.

It is a feature of the system that a wild space can be randomly applied to any one of the horses.

If a wild space is selected rather than a standard space then the horse will move two space lengths rather than its normal move.

If such a wild space is received by one of the rear horses then it would have an impetus to move towards the front and, of course, a front runner could move effectively rapidly towards the finish. Whilst we have basically described this game as being a video based game it will be understood that it could be played as a table game.

In such a game there could be, say four to six rows each broken into a number of spaces, say eight spaces each, and in one particular form three could be six rows which have the names of each of the suits of cards and two other names, such as Joker and Wild Card.

There could be then a random number generator, which could comprise a pack of cards which includes an equal number of cards of each of the six names, together with a predetermined number of equaliser cards, and markers could be moved forward as each card is disclosed.

Alternatively, some form of random generator could be used to produce the moves and again, in each case, the markers could be moved forward.

Alternatively, of course, the lanes could be set up so that a display is illuminated on each result which corresponds to each card or other generators of a random number which effect a movement of a competitor.

The general form of betting and the rest of the game could be considered to that described in relation to the earlier embodiment.

It is envisaged that other embodiments of the invention will exhibit any number of and any combination of the features of the previously described embodiments.

We claim:

1. A computer based race type games the results of which are randomly generated characterised in that each competitor has an equal chance of winning.
2. A game as claimed in claim 1 where a player in real time and each move of each competitor is separately obtained from a random number generator.
3. A game as claimed in claim 1 or claim 2 having a jackpot feature having a prize pool, the jackpot being triggered by a particular result or a series of results; if the result or series of results are not achieved, then the prize pool is not distributed and the jackpots to the next game.
4. A game as claimed in claim 3 wherein the jackpot pool is separate from the game pool so that the jackpot bets are separated from the normal bets on the game.
5. A game as claimed in claim 3 or claim 4 wherein the result or series of results can be obtained from a single event or a series of events.
6. A game as claimed in claim 5 wherein the series of results are the winning results of a series of events.

7. A game as claimed in claim 5 wherein the results are achieved from a single event and are based on the finish order of competitors in the event.
8. A game as claimed in any one of claims 1 to 3 wherein the game comprises a random animated horse race game.
9. A game based on a number of events having a jackpot component which is triggered by success in at least some of the events, the competitor in each event each having an equal chance of success.
10. A game as claimed in claim 9 wherein the jackpot is won by a player or players which have success in each of the events.
11. A game as claimed in either of claim 9 or claim 10 wherein a prize less than the jackpot is won is won by a player or players being successful in all but one event.
12. A game as claimed in claim 11 wherein the lesser prize is achieved by the player being successful in all but the last event and being a runner-up in the last event.
13. A game as claimed in any one of claims 9 to 12 wherein there are a total number of competitors available for all events which are initially pooled and selected for individual events.

14. A game as claimed in claim 13 wherein the competitors for each event can be selected from the total pool less the competitors which have won previous events.
15. A game as claimed in any preceding claims wherein the events are run in real time, a random number or a pseudo random number generator being used to select which competitor moves at any particular time, the sequential development of the random numbers and thus movement of the competitors continuing until at least the winning competitor completes the event.
16. A game as claimed in claim 15 wherein there may be one or a series of random numbers which cause all competitors to move a similar distance.
17. A game as claimed in claim 15 or claim 16 wherein there may be one or a series of random numbers which can cause the competitor being moved to be moved more than one movement.
18. A game as claimed in any preceding claims wherein the game is a computer game and wherein the movements of the competitors is illustrated on a computer screen.
19. A game as claimed in claim 18 wherein the computer screen is a personal screen.
20. A game as claimed in claim 18 wherein the screen is a large screen and can be watched by a number of players of the game and other spectators.

21. A game as claimed in any of one of claims 9 to 18 wherein the game is a table game and the competitors are represented by tokens or models which can be moved along the table in response to random numbers each of which refers to all lead one competitor being generated.
22. A game as claimed in claim 20 wherein the competitors are represented by tokens or models and are caused to move automatically on specific random numbers being generated.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/AU 98/01029

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Patent Document Cited in Search Report				Patent Family Member	
WO	94/13374	AU	56196/94	AU	684731
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